

IN THE CLAIMS:

1. A fluid analyzer comprising:
 - a pump;
 - a concentrator connected to the pump; and
 - a separator connected to the concentrator; and

wherein the concentrator comprises:

 - a channel; and
 - a continuous heater film in the channel.
2. The analyzer of claim 1, wherein the continuous heater film is for generating a moving heat zone in the channel.
3. The analyzer of claim 2, wherein the heat zone has a rate of movement approximately the same as a fluid moving through the channel.
4. The analyzer of claim 3, further comprising:
 - a first detector situated between the pump and the concentrator; and
 - a second detector situated at an output of the separator.

5. The analyzer of claim 4, further comprising a third detector between the concentrator and the separator.

6. The analyzer of claim 5, wherein:

the first detector is a thermal conductivity detector;

the second detector is a thermal conductivity

detector; and

the third detector is a flow sensor.

7. The analyzer of claim 6, further comprising a controlling mechanism connected to the pump, concentrator, separator and detectors.

8. A fluid analyzing means comprising:

means for pumping a fluid; and

means for concentrating the fluid with a heat pulse

having a rate of movement approximately the same

as a rate of movement of the fluid.

9. The means of claim 8, further comprising:

means for separating components of a fluid; and

means for controlling the means for pumping, means for concentrating and the means for separating.

10. The means of claim 9, further comprising at least one means for detecting the thermoconductivity of a fluid at a place between the means for pumping and an outlet of the means for separating.

11. The means of claim 10, further comprising at least one means for detecting a rate of a fluid flow at a place between the means for pumping an outlet of the means for separating.

12. A method for analyzing a fluid, comprising:
pumping a fluid into containment;
heating the fluid in the containment with a heat pulse
that moves through the containment at a speed
about the same as a speed of the fluid.

13. The method of claim 12, further comprising separating components of the fluid.

14. The method of claim 13, further comprising detecting the thermoconductivity of the fluid.

15. The method of claim 14, further comprising detecting the speed of the fluid through the containment.

16. A fluid analyzer comprising:

a fluid mover;

a concentrator connected to the fluid mover;

a separator connected to the concentrator; and

a heat pulse generator situated in the concentrator.

17. The analyzer of claim 16, further comprising at least one detector situated in the analyzer.

18. The analyzer of claim 17 wherein the heat pulse generator is a means for generating a heat pulse that can move along with a fluid in the concentrator.

19. The analyzer of claim 18, further comprising at least one flow sensor situated in the analyzer.

20. The analyzer of claim 19, further comprising a processor connected to the pump, the heat pulse generator, the at least one flow sensor and the at least one detector.

21. A fluid analyzer comprising:

a concentrator;

a separator connected to the concentrator;

at least one detector; and

a controller connected to the concentrator, the separator, the at least one detector; and

wherein the concentrator, separator, at least one detector and the controller are integrated on a chip.